Lyme Disease

What is Lyme Disease?

Lyme Disease is an infection which can affect the skin and occasionally cause serious illness of the nervous system, joints or heart.

It is caused by a spiral-shaped bacterium, transmitted by the bite of an infected tick.

Ticks are tiny spider-like creatures which live in woodland, moorland and grassy areas. Unlike spiders, however, they press themselves close to the skin of the host as they crawl.

The highest risk was thought to be from April to October when the tick was most active and feeding, but research has now shown that, in certain areas, ticks may be active most of the year.

Can it be prevented?

Yes. The ticks cling to ends of vegetation and wave their legs around hoping to latch on to a passing animal or person - so your first defense is to keep your skin covered.

If a tick attaches itself to your clothing, it may crawl around for some time before making contact with your skin.

Wear long trousers, tucked into socks if possible, and long-sleeved shirts.

Light colored clothes will help you spot ticks and brush them off.

Inspect for ticks every few hours and, if possible, at the end of your day's outdoor activity, undress and completely check your body for ticks.

Insect repellent on clothing and repellent collars for pets may help.

What if I am bitten?

Remove the tick as soon as possible by grasping it close to the skin with tweezers. Apply gentle pressure, twisting anti-clockwise upwards, repeating if necessary. Part of the tick may remain embedded, but you will have prevented the tick transferring the infection to you. (Save the tick in a sealed container in case you develop symptoms later.)

Should I see my Doctor?

The disease may first show itself as an expanding reddish, round rash (erythema migrans) in the area of the bite. This rash starts three to thirty days later.

Early symptoms may resemble influenza ('flu,) with swollen glands near the site, mild headaches, aching muscles and joints, and tiredness.

If left untreated, the disease may develop over months and even years, when facial muscle weakness, meningitis-like symptoms, and/or arthritis symptoms may occur.

If you have any of these symptoms and you suspect that you may have been bitten by a tick, inform your doctor. Lyme Disease is treatable with antibiotics and the earlier it is diagnosed, the better.

LIFE CYCLE

The tick (Ixodes ricinus) is a tiny spider-like creature whose appearance changes with the different stages of its life cycle. The cycle includes three feeding sessions, usually over a three year period. However, in some areas, mild winters and cool summers can modify what is described here.

Year One

Females deposit several thousand fertilized eggs in soil crevices. By the summer, the eggs have hatched in larvae, which remain inactive in the shelter of leaf litter until the following spring. It has been shown that ticks may be brought into the home and lay eggs. Regular vacuum cleaning should remove them.

Year Two

In the spring, the larvae become active, climb up vegetation and wait to attach themselves to their host, usually a small mammal such as a field mouse or vole, for a blood meal. After the feed, the larvae fall to the ground, moult into the nymph stage and remain inactive until the following spring.

Lyme Disease (Cont)

Year Three
In the spring, the nymphs become active again and have a blood meal. This may be on a mouse/vole or a larger animal such as a rabbit or hare. After the feed, the nymph falls to the ground to mature into the adult stage. Adults emerging in the Autumn or, more usually, the following spring, climb up the vegetation and attach and feed on a passing host (commonly a deer, but also sheep, horses or dogs.) Mating may then take place on the host; the male dies and the female drops off. The female then lays her eggs to complete the life cycle.
Infection of the tick takes place during one of the blood meals, at which, the tick may acquire or transmit the spirochaete Borrelia burgdorferi (the cause of Lyme Disease) to the host animal .
Lyme Disease is usually transmitted to humans by infected nymphs (during year three of their life cycle,) when they bite people. In the nymph stage, the ticks are quite small and will not be felt on the skin. Lyme Disease can also be transmitted by infected adult ticks to human beings when they emerge looking for larger hosts. As the tick feeds, it swells with the blood of the host and becomes more obvious on the skin.

Habitat of Ticks
Ticks are found where there is a combination of the following:
dead vegetation or leaf litter
passing host animals
Many parts of the US are potential tick habitats. Recently, it has been found that ticks from many of these areas carry the infection.

A REVIEW OF LYME DISEASE
Prevention in Risk Areas
• Keep skin covered and, where possible, avoid brushing against vegetation.
• Inspect clothing and body regularly when you spend time in the countryside.
• Remember, dogs and cats may be bitten and infected. If your dog or cat becomes noticeably lethargic and you are concerned about Lyme Disease, seek Veterinary advice promptly.
• Removal
• Do not panic, but remove the tick as soon as possible.
• They will crawl about before biting.
• An infected tick will not usually pass on the infection until it is fully engorged with blood.
• Not every tick carries Lyme Disease.
• Not every bite will transmit the disease, even if the tick is infected and not removed.
• Check your pets for ticks and remove them.
• Seek Medical Help
• Infection is unlikely unless the tic 24 hours. If a rash or 'flu-like illness develops after you have been expc omes infected, seek medical advice promptly.